

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

1. **(CURRENTLY AMENDED)** A method of transforming an *Allium* genus plant comprising the following steps:

(a) transforming embryo cells of the *Allium* genus plant with DNA sequences via a vector or direct gene transfer to produce transformed plant material, wherein transformation is achieved by:

(i) transferring embryo tissue into a preparation of *Agrobacterium*,

(ii) transferring the embryos to a culture medium;

(iii) co-cultivating for a period of 1-12 days;

(b) selecting the transformed plant material, by transferring the embryos to a selection medium containing the appropriate selection agents to kill the agrobacteria and preferentially grow the transgenic plant cells;

(c) culturing the tissues from (b) to produce secondary embryos and regenerating the transformed plant material; and

(d) obtaining a transformed *Allium* genus plant;

wherein the method of transforming is carried out without a passage through a callus phase.

2. **(CURRENTLY AMENDED)** The method according to claim 1 wherein the *Allium* genus plant is transformed ~~using~~ by co-cultivation of *Allium* tissue with a strain of

Agrobacterium containing a plasmid with a functional T-DNA region that is capable of transfer to plant cells and that following this transformation, Allium tissue is regenerated by preferential selection.

3. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 in which the *Allium* genus plant is onion.

4. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 wherein the embryo cells are transformed using a binary vector.

5. **(PREVIOUSLY PRESENTED)** The method according to claim 1 in which the embryo cells are inoculated with an *Agrobacterium* strain containing a T-DNA active for transformation.

6. **(PREVIOUSLY PRESENTED)** The method according to claim 1 or 2 in which immature embryos are used.

7. **(CURRENTLY AMENDED)** A method of transforming an *Allium* genus plant using immature embryos as an explant source, comprising:

- (a) isolating immature embryos of the Allium genus plant to be transformed;

(b) transforming the immature embryos by inoculating the immature embryos with an *Agrobacterium* strain and wounding the immature embryos in a culture medium, wherein transformation is achieved by:

(i) transferring embryo tissue into a preparation of *Agrobacterium*,

(ii) transferring the embryos to solid medium, and

(iii) co-cultivating for 1-12 days;

(c) transferring the immature embryos to a selective medium of P5 medium plus 10 mg/l geneticin and 200 mg/l timentin or 5 mg/l Basta and 200 mg/l timentin, or other appropriate selective agents to kill the agrobacteria and preferentially select the transgenic *Allium* cells;

(d) culturing the immature embryos in the dark to produce secondary embryos;

(e) selecting putative transgenic cultures;

(f) regenerating plants; and

(g) producing a transformed ~~Allium~~ *Allium* genus plant.

8. **(PREVIOUSLY PRESENTED)** The method according to claim 1 wherein the plant is transformed with an *Agrobacterium tumefaciens* strain containing a vector which carries a selectable DNA of interest.

9. **(PREVIOUSLY PRESENTED)** The method according to claim 8 in which the selectable DNA of interest confers herbicide resistance to the transformed plant.

10. **(CURRENTLY AMENDED)** The method according to claim 9 in which the herbicide resistance DNA of interest ~~is the bar gene or a glyphosate resistance gene~~ encodes bar resistance or glyphosate resistance.

11. **(PREVIOUSLY PRESENTED)** The method according to claim 8 in which the selectable DNA of interest is an antibiotic resistance DNA of interest.

12. **(PREVIOUSLY PRESENTED)** The method according to claim 11 in which the antibiotic resistance DNA of interest is the *nptII* DNA of interest.

13. **(CANCELED)**

14. **(PREVIOUSLY PRESENTED)** A transformed plant when produced by the method of claim 1.

15. **(CANCELED)**